


# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference		<b>FOR FURTHER ACTION</b>		See Form PCT/PEA/416
International application No. PCT/GB2004/004152		International filing date (day/month/year) 29.09.2004		Priority date (day/month/year) 04.10.2003
International Patent Classification (IPC) or national classification and IPC G06F9/46				
Applicant SYMBIAN SOFTWARE LIMITED et al.				
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> sent to the applicant and to the International Bureau a total of sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>				
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the opinion</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>				
Date of submission of the demand  27.07.2005		Date of completion of this report  09.09.2005		
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465		Authorized Officer  Müller, T  Telephone No. +49 89 2399-		



**INTERNATIONAL PRELIMINARY REPORT  
ON PATENTABILITY**

International application No.  
PCT/GB2004/004152

**Box No. I Basis of the report**

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
  - ☐ This report is based on translations from the original language into the following language, which is the language of a translation furnished for the purposes of:
    - ☐ international search (under Rules 12.3 and 23.1(b))
    - ☐ publication of the international application (under Rule 12.4)
    - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements\*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

**Description, Pages**

1-10 as originally filed

**Claims, Numbers**

1-10 as originally filed

- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing
3. ☐ The amendments have resulted in the cancellation of:
    - ☐ the description, pages
    - ☐ the claims, Nos.
    - ☐ the drawings, sheets/figs
    - ☐ the sequence listing (*specify*):
    - ☐ any table(s) related to sequence listing (*specify*):
  4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
    - ☐ the description, pages
    - ☐ the claims, Nos.
    - ☐ the drawings, sheets/figs
    - ☐ the sequence listing (*specify*):
    - ☐ any table(s) related to sequence listing (*specify*):

\* If item 4 applies, some or all of these sheets may be marked "superseded."

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**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

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1. Statement

Novelty (N)	Yes: Claims	
	No: Claims	1
Inventive step (IS)	Yes: Claims	
	No: Claims	2-10
Industrial applicability (IA)	Yes: Claims	1-10
	No: Claims	

2. Citations and explanations (Rule 70.7):

**see separate sheet**

Used Documents

1. Reference is made to the following documents:

- D1: US-A-5 963 982 (GOLDMAN PHILLIP Y) 5 October 1999 (1999-10-05)
- D2: CAVALIERI S ED - INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS: "Exploring real-time features of java VM" IECON-2002. PROCEEDINGS OF THE 28TH. ANNUAL CONFERENCE OF THE IEEE INDUSTRIAL ELECTRONICS SOCIETY. SEVILLA, SPAIN, NOV. 5 - 8, 2002, ANNUAL CONFERENCE OF THE IEEE INDUSTRIAL ELECTRONICS SOCIETY, NEW YORK, NY : IEEE, US, vol. VOL. 1 OF 4. CONF. 28, 5 November 2002 (2002-11-05), pages 2538-2543, XP010633111 ISBN: 0-7803-7474-6
- D3: DE 100 40 241 A (GIESECKE & DEVRIENT GMBH) 22 March 2001 (2001-03-22)

2. The person skilled in the art is aware of documents D1 to D3 because they are from the same technical field as the present application, namely *memory defragmentation*.

Objections regarding Novelty

3. Document D1 is regarded as closest prior art. It discloses in the original wording of *independent claim 1* (reference to the closest prior art is made in square brackets; the original wording of the claim is set in *italic font*; features not explicitly disclosed in the prior art are set ~~strikeout~~) *a method of managing memory resource in a computing device, the method comprising using a thread of operating system code [D1, col. 4, lines 35 to 42; discloses a "defragmentation process" which is obviously part of the system's operating system; a thread and a process are the same in the context of the present application] which is arranged to run when no other thread is ready to run to initiate defragmentation of data held in memory resource in the computing device [D1, col. 3, lines 46 to 56 and Fig. 2, system running idle implies that no thread is running]*.
4. Therefore, the subject-matter of claim 1 is not new and thus this claim is not allowable, Article 33 (2) PCT. Should the applicant be able to identify minor differences or amend the claim by such differences which overcome the above novelty

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(SEPARATE SHEET)**

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objection, then still the claim cannot be considered to be allowable for lack of inventive step, Article 33 (3) PCT.

**Objections regarding Inventive Step**

5. The subject matter of dependent claims 2 to 8 does not seem to involve an inventive step in the sense of Article 33(3)PCT because it appears that above-mentioned dependent claims add only features which are merely one of several straightforward possibilities from which the skilled person would select, in accordance with circumstances and in particular in the light of documents D1 to D3, without the exercise of inventive skill, in order to solve the problems posed.

6. The objections raised for claims 1 to 8 apply, mutatis mutandis, to claim 9 and 10.

**Concluding Remarks**

7. The applicant may file a new set of claims clarifying the subject-matter protection is sought for.

8. An explanation relating to the problem solved by the features distinguishing the new independent claims from the present independent claims and the prior art as well as relating to the essence of said distinguishing features for obtaining the solution should be given.

9. Care should be taken that the new set of claims is supported by the description to comply with Article 34(2)(b) PCT, i.e. the amendments do not go beyond the disclosure in the international application as filed. Therefore, the applicant is requested to provide references to supporting passages in the description for the amended claims. Failure to do so may result in undiscovered supporting passages and consequently, the corresponding amendments have to be regarded violating Article 34(2)(b) PCT.